Rain Gain

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My project was to research the power output of a water wheel apparatus that used the flow of rain in a rain gutter. I compared rounded, cupped, and flat blade assemblies at 4 distances, different numbers of blades (3,6.9.and 12), and three speeds of water flow. 1.06 gallons/minute: 1 ft.: 6 rounded blades- best, 3 flat blades -worst. 2 ft. : 6 cupped-best , 3 flat- worst. 3 ft.: 6 rounded & 6 cupped- best, 12 flat- worst. 4 ft.: 6 rounded-best, 3 flat- worst. 2.92 gallons/minute: 1 ft.: 12 rounded -best, 3 flat blades-worst. 2 ft, : 9 rounded- best, 3 flat-worst. 3 ft.: 9 cupped are the best and 3 flat are the worst. 4 ft.: 12 cupped are the best and 3 flat are the worst. 3.82 gallons/minute: 1 ft.: 9 cupped- best, 6 flat blades- worst. 2 ft. : 9 cupped- best, 3 flat - worst. 3 ft.: 12 rounded - best, 3 flat- worst. 4 ft.: 6 rounded - best, 3 flat- worst. The overall worst, was the 3 flat blade assembly. The overall best was the 6 rounded blades at 4 ft. and 3.82 gallons/minute.

Awards Won: